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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,440	01/25/2002	Uri Mahlab	MAHLAB=2	3860

1444 7590 06/01/2005

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EXAMINER

BELLO, AGUSTIN

ART UNIT PAPER NUMBER

2633

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/936,440

Applicant(s)

MAHLAB, URI

Examiner

Agustin Bello

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 44-86 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 44-86 is/are rejected.
- 7) ☒ Claim(s) 84 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/14/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 47-49, 57-61, 66-74, 76-79, 82-83, 85, 86 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 47 recites the limitation "steps (d) to (f)." There is insufficient antecedent basis for this limitation in the claim. Likewise, claim 61 refers to "step (f)" and "step (e)" for which there is insufficient antecedent basis.
4. Claims 48 and 49 are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.
5. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "network" in claims 57-61 is used by the claim to mean "protocol", while the accepted meaning is "a system of computers." The term is indefinite because the specification does not clearly redefine the term.

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6. Regarding claims 66-74, 76-79, 82-83, 85, 86 the word "means" is preceded by a variety of different word(s) or no words at all in an attempt to use a "means" clause to recite a claim element as a means for performing a specified function. However, since no function is specified by the word(s) preceding "means," it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967).

Claim Objections

7. Claim 84 is objected to because of the following informalities: this claim depends from claim 43 which has been cancelled. Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 44-47, 53, 55-56, 61, 63-66, and 72-86 are rejected under 35 U.S.C. 102(e) as being anticipated by Fatehi (U.S. Patent No. 6,600,583).

Regarding claim 44, 65, 72, 74-78, 80-81, and 82-86, Fatehi teaches transmitting optical addressing data to a first network element having routing capabilities (reference numeral R1 in Figure 1); assigning an appropriate optical link (reference numeral 101, 104 in Figure 1) connecting said first network element with a second network element (reference numeral R2, R5

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in Figure 1) where the assignment is based on the optical addressing data; and transmitting the optical data via the assigned optical link.

Regarding claim 45, Fatehi teaches a method for routing optical data signals using one or more optical addressing links (reference numeral 101-107 in Figure 1) for carrying optical addressing signals (reference letters T in Figure 1), wherein a combination of said optical addressing signals (reference letters T in Figure 1) provides addressing information required for establishing an address for routing the optical data signals and wherein said optical data signals are transmitted via an optical data link (reference numeral 101-107 in Figure 1).

Regarding claim 46 and 55, Fatehi teaches generating first optical addressing signals by converting signals identifying a destination address into corresponding optical addressing signals (reference letters T in Figure 1); transmitting said optical addressing signals over one or more optical addressing links to a first router (reference letter R2 in Figure 1); and subsequently transmitting said optical data signals to said first router via an optical data link (column 4 line 61 – column 5 line 7).

Regarding claim 47, Fatehi teaches that generating second optical addressing signals associated with the next section of a transmission path extending from said first router towards said destination address; transmitting the second optical addressing signals over one or more optical addressing links extending between said first router and a second router; transmitting said optical data signals to said second router via an optical data link extending between said first router and said second router; and repeating steps (d) to (f) until said optical data signals are transmitted to said destination address via subsequent routers located along a transmission path extending towards said destination address (column 4 line 61 – column 5 line 7).

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Regarding claim 53, Fatehi teaches that the transmission of at least one of the optical data signals is delayed until the following steps are performed; decoding said optical address signals; deriving addressing information from the decoded optical addressing signals; and if required, generating another, or using said, optical routing address for further routing of said optical data signals (column 4 line 61 – column 5 line 7).

Regarding claim 56, Fatehi teaches that indication serves as an acknowledgement in a communication signaling process (e.g. “A” signals in Figure 1).

Regarding claim 63, Fatehi teaches that the indication signal is an optical indication signal (column 4 line 61 – column 5 line 7).

Regarding claim 64 and 79, Fatehi teaches that the indication is an electric indication signal (e.g. once it reaches the other side of the source router R1 in Figure 1).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 48-52, 54, 57-60, 62, and 67-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fatehi in view of Nir (U.S. Patent No. 6,160,652).

Regarding claim 48, 67, *as best understood in view of the 35 USC §112 rejection above*, Fatehi differs from the claimed invention in that Fatehi fails to specifically teach that information extracted from at least one of the optic addressing signals is transmitted at one of two binary illumination states. However, the transmission of binary information is very well known in the

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art. Furthermore, Nir, in the same field of optical communication, teaches the transmission of optical address signals in different binary illumination states (column 6 lines 23-65). One skilled in the art would have been motivated to employ a binary illumination scheme such as that taught by Nir in order to increase the number of available addresses. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to transmit optical address signals in different binary illumination states.

Regarding claim 49, *as best understood in view of the 35 USC §112 rejection above*, the Fatehi differs from the claimed invention in that Fatehi fails to specifically teach that at least one of the optical addressing signals is transmitted at a certain illumination level whereas at least one other optical addressing signal is presented by absence of illumination. However, as discussed regarding claim 48, Nir teaches the transmission of optical address signals in different binary illumination states and further teaches that the optical addressing signals is transmitted at a certain illumination level (e.g. "1" being high) whereas at least one other optical addressing signal is presented by absence of illumination (e.g. "0" being low) (column 6 lines 23-65). One skilled in the art would have been motivated to employ a binary illumination scheme such as that taught by Nir in order to increase the number of available addresses. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to transmit optical address signals in different binary illumination states.

Regarding claims 50-52 and 68-71, the combination of references obviate the ability to transmit the optical addressing signals either on the same wavelength, different wavelength, at the same intensity or different intensities (see addressing tables of Nir indicating different intensities and different wavelengths; e.g. overlap of addressing signals indicated in 302 of

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Figure 3 of Fatehi). Furthermore, the applicant's claim to a variety of combinations of wavelengths and intensities indicates that this feature is not critical to the invention at hand. Clearly, one skilled in the art would possess the ability to transmit optical signals at different intensities and wavelengths as desired. As such the combination of references obviates the claimed invention.

Regarding claim 54, 73, Fatehi differs from the claimed invention in that Fatehi fails to specifically teach that the transmission of said at least one of the optical data signals is delayed by allowing said at least one of the optical data signals to pass through an optic fiber of a length corresponding to a desired delay in the transmission. However, Nir teaches this limitation (column 2 line 9 –14). One skilled in the art would have been motivated to employ a delay as taught by Nir in order to allow the router to determine the routing action necessary for the data signals while the address signal is processed. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to delay the transmission of a data signal via a delay fiber.

Regarding claim 57-60, *as best understood in view of the 35 USC §112 rejection above*, Fatehi teaches that different protocol can be employed in the transmission of the optical address signals (column 10 lines 45-55). Furthermore, Nir teaches the IP protocol (column 1 lines 28-35). Furthermore, the protocols listed by the applicant are very well known in the art and well within the realm of knowledge of one skilled in the art. As such, one skilled in the art could have selected which protocol or combination of protocols would be most effective in the system of Fatehi. Therefore, it would have been obvious to one skilled in the art at the time the invention

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was made to employ different protocols as taught by Fatehi and Nir as needed throughout the system of Fatehi.

Regarding claim 62, Fatehi teaches that the indication is transmitted along a path different path than the data transmission path (e.g. reverse path as seen in Figure 1).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Agustin Bello whose telephone number is (571) 272-3026. The examiner can normally be reached on M-F 8:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AB


AGUSTIN BELLO
PATENT EXAMINER
05/24/05